US Position on BIP-M

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As part of the WMO review of the existing BIPM/MT the US has formed a team to both review the BIP-M as well as make suggestions for revision. The Team is led by John Ogren, Chief Learning Officer for the US National Weather Service (NWS). Additional team members include Thomas Moore, US Air Force, Frank Baker, US Navy, Dan Beardsley, NWS International Affairs office, and Dr. Elizabeth Page from the COMET Program. Together the US military and NWS make up the vast majority of public sector jobs in the US. The US in most cases meet WMO BIP-M requirements and often exceeds them.

New hires into the NWS often have a Master’s of Science or PHD in Atmospheric Science. This is consistent with hiring practices within the private sector Meteorology companies in the US. The difference is that US Military forecasters do not possess college degrees. All Navy and Air Force forecasters receive extensive training on weather forecasting. These forecaster issue forecasts, advisories, and augmenting airfield observations and do not comply with the current BIP-M standards. These forecaster are supervised by officers who do in fact have at least a BS degree in atmospheric science and do meet BIP-M standards.

It is the assessment of this team that the current BIP-M does not meet the needs for the changing world of weather forecasting. The Current BIP-M is highly academic and does not take into account how the knowledge learned would actually be applied to the forecasting and service delivery process. As numerical modeling improves, the role of the forecaster in the operational environment are changing. Day to day forecasting is becoming more automated and the time that used to be spent generating forecasts is increasingly being used to communicate the impacts of impending adverse weather to decision makers.

The US recommends a flexible approach to the BIP portfolio that takes into account both a rigorous academic approach for roles requiring advanced education, as well as a more flexible operational track that takes into account vocational competence for operational roles. This aligns with the proposal in the Concept Paper drafted by the Standing Conference of the Heads of Training Institutions Coordinating Committee (SCHOTI/CO-COM). This concept outlines a change to the BIP portfolio to incorporate multiple roles to which varying BIP standards could be applied as an accreditation standard. This approach also aligns with a competency model being implemented by the NWS which assessed a forecaster’s ability to perform various proficiencies vs academic coursework.

It is vitally important to note this is a recommendation of an alternative approach to the BIP-M rather than a firm position. We firmly believe there need to be worldwide standards and are open to discussion on how to best revise our current standards.

The following are questions and comments to consider at the BIP-M and Global Campus meetings being held at the end of November 2018.

**Questions and Comments to Support the U.S. National Position for BIPM/MT Review.**

The current BIPM (WMO-No. 1083, 2015 Edition) is focused on knowledge attainment and does not lead to graduates from the academic tracks/institutions that are able to forecast.

To support our donor work in developing countries, we need to better alignment between BIPM/MT and forecaster qualification job requirements. People who graduate from our donor support BIPM/MT programs need to be able to forecast upon graduation from the programs

There are no performance qualifications listed, only knowledge development topics. How do we qualify someone as competent to perform on the job?

Additional performance based competency development is needed for BIPM/MT graduates to get forecasters ready to perform on the job.

NMHS’s in developing countries cannot afford to have people gone from the forecast shifts for 18-48 months to get a degree only to return without forecasting skills. Some NMHS’s try to have people complete the BIPM/MT before starting shifts. Retention of these individuals is low in some countries.

Developing countries need performance based qualified forecasters graduating from BIPM/MT programs. A full college degree in meteorology may not be necessary for all meteorologist positions in developing and/or developed countries.

With the changing role of the forecasters in developing and developed countries, we may need to extend the BIPM/MT standards to include operations, IBF, DRR, Maritime, PWS, etc. as specialized qualifications to match national needs as specified by the PR or within regions.

To support our donor and capacity development work, we need pathways for BIPM/MT qualification that can be accomplished in 9 months or less utilizing online, distance or alternative methods of learning.

BIPM/MT qualifications are focused on identifying academic degree requirements for meteorologists. The WMO Permanent Representative in each country must have the authority to tailor the BIPM/MT to their region and to their national standards while closely complying with the intent of the standards.

In the United States we have approximately 10,000 government forecasters. Approximately ½ of these forecasters are in the Department of Defense. In the Department of Defense, forecaster certification is not based on academic prerequisites/attainment of degrees, but on performance based competency certification. We need a pathway for acceptance or testing for equivalence for these DoD forecasters as AMF, Maritime, and PWS/DRR certified. The DoD model or something similar could be extended to developing nations.

Certification requirements in developing countries may be similar to those in the U.S. Department of Defense and alternate performance based certification pathways for developing countries should be investigated for developing countries.

The BIPM standards are having a disproportionate influence on operational forecasters because of the requirement for aviation forecasters to meet these standards. Therefore, special consideration should be given by the review team related to standards specifically for operational forecasters. The goal might be a new applied or operational standard for Aviation Meteorological Forecasters.